

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590 L-0310

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REPLY TO THE ATTENTION OF:

Mr. Johnny W. Reising United States Department of Energy Feed Materials Production Center P.O. Box 398705 Cincinnati, Ohio 45239-8705

RE: Technetium-99 Sewage

Treatment Plant Area

PSP

Dear Mr. Reising:

The United States Environmental Protection Agency (U.S. EPA) has completed its review of the United States Department of Energy's (U.S. DOE) Project Specific Plan (PSP) for the investigation of technetium-99 in soil in the sewage treatment plant area.

This document provides a plan for soil sampling and analysis to determine the extent of the technetium-99 contamination in the vicinity of the sewage treatment plant.

U.S. EPA's has several comments on the PSP which are enclosed.

Please contact me at (312) 886-0992 if you have any questions regarding this matter.

Sincerely,

James A. Saric

Remedial Project Manager Federal Facilities Section SFD Remedial Response Branch #2

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Enclosure

cc: Tom Schneider, OEPA-SWDO
Bill Murphie, U.S. DOE-HDQ
John Bradburne, FERMCO
Terry Hagen, FERMCO
Tom Walsh, FERMCO

TECHNICAL REVIEW COMMENTS ON "PROJECT SPECIFIC PLAN FOR PRE-DESIGN INVESTIGATION OF TECHNETIUM-99 IN SOIL IN THE SEWAGE TREATMENT PLANT AREA"

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

GENERAL COMMENT

Section #: Not applicable (NA) Page #: NA

Original General Comment #: 1 Line #: NA

Comment: The text states in several locations that 90 percent of the field samples will be analyzed at Analytical Support Level (ASL) B; therefore, sample results will not be validated. This practice is adequate and appropriate for most predesign investigations to delineate the extent of contamination. However, a major objective of this project specific plan (PSP), as discussed in Section 1.1, is to determine if previously reported technetium-99 results are actually false-positive analytical results caused by interference from uranium isotopes. Unvalidated ASL B results are insufficient to refute previous analytical results. The text should be revised to state that all technetium-99 samples will be analyzed and the analytical results validated at ASL D.

SPECIFIC COMMENTS

Commenting Organization: U.S. EPA Commentor: Saric Section #: 1.3 Page #: 2 Line #: 6-12

Original Specific Comment #: 1

Comment: The text states that two phases of sample collection will be conducted at specified locations and that Phase 2 sampling is optional. The text should be modified to include an optional Phase 3 for collection of samples at additional undetermined locations if necessary to meet the PSP objectives. This additional phase will be much easier to implement through a field change notice (FCN) than by revising the PSP.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 2.1.1 Page #: 6 Line #: NA

Original Specific Comment #: 2

Comment: The text discusses selected sampling locations. Sampling location selection is apparently based on the assumption that all technetium-99 contaminated areas in the vicinity of the Sewage Treatment Plant are already known and included in the PSP. The text should be revised to state

this assumption and to note that no effective field survey procedures exist for technetium-99, a weak gamma emitter.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 2.2 Page #: 7 Line #: 15-16

Original Specific Comment #: 3

Comment: The text states that designated portions of each collected soil core will be submitted for analysis. The text should also specify that remaining portions of the core will be stored in appropriately labeled containers and archived. These additional portions can be readily retrieved and analyzed through an FCN if necessary to meet the PSP objectives.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 3.1 Page #: 11 Line #: 12-13

Original Specific Comment #: 4

Comment: The text states that the "samples will not be dried, but not ground," and that results will be reported on a "dry weight basis." The text should be revised to resolve this discrepancy.